



Commercial Boiler Maintenance Checklist

18 planned preventive maintenance tasks · Free PDF from PM Assist

A practical starting point for planned preventive maintenance. Always refer to the manufacturer's O&M manual and site-specific requirements.

Visual Checks

- ☐ Inspect the burner for correct flame pattern and condition
- ☐ Inspect the flue system for integrity, corrosion, or blockages
- ☐ Check condensate trap and drain (condensing boilers)
- ☐ Inspect the heat exchanger for scale, corrosion, or leaks

Functional Checks

- ☐ Carry out flue gas analysis and record CO, CO₂, O₂, and flue temperature
- ☐ Check boiler flow and return temperatures match BMS setpoints
- ☐ Check system water pressure and expansion vessel pre-charge
- ☐ Check gas supply pressure at the burner inlet
- ☐ Confirm BMS lead/lag sequencing is rotating duty evenly across the boiler cascade
- ☐ Check system return temperature is low enough to keep condensing boilers in condensing mode
- ☐ Test system inhibitor concentration and log against the water treatment regime

Cleaning & Housekeeping

- ☐ Clean burner and ignition components
- ☐ Inspect dirt separator and magnetic filter; clean or purge as required

Safety Checks

- ☐ Verify all safety interlocks operate correctly (gas valve proving, flame failure, overheat)
- ☐ Test pressure relief valve operation
- ☐ Verify gas shut-off valve operation
- ☐ Verify low-water / flow protection and the boiler's own overheat (high-limit) stat

Record Keeping

- ☐ Record all readings, test results, and any defects found

Maintenance Frequency

Weekly

- Check boiler operational status via BMS
- Visual check for leaks or unusual noise

Monthly

- Check system water pressure
- Inspect condensate trap
- Review fault log
- Confirm lead/lag rotation across the cascade

Quarterly

- Test system inhibitor concentration
- Clean/purge dirt separator and magnetic filter
- Check flow and return temperatures against setpoints
- Inspect flue joints and condensate run

Annually

- Full gas safety inspection by Gas Safe registered engineer
- Flue gas analysis
- Burner service
- Safety interlock testing
- Heat exchanger inspection